



Understanding Developmental Domains

Developmental domain – Term used by professionals to describe areas of a child's development, for example: gross motor development (large muscle movement and control); fine motor development (hand and finger skills, and hand-eye coordination); speech and language/communication; the child's relationship to toys and other objects, to people and to the larger world around them; and the child's emotions and feeling states, coping behavior and self-help skills.

List of Terms: Terms Frequently Used in Developmental Assessment. (1997) The ZERO TO THREE New Visions for Parents Work Group. National Center for Infants, Toddlers and Families. [Online]. Available: <http://www.zerotothree.org/glossary.html> [Retrieved: 2004, April 8].

Domains of children's development – physical, social, emotional, and cognitive – are closely related. Development in one domain influences and is influenced by development in other domains.

Development in one domain can limit or facilitate development in others (Sroufe, Cooper, & DeHart 1992; Kostelnik, Soderman, & Whiren 1993). For example, when babies begin to crawl or walk, their ability to explore the world expands, and their mobility, in turn, affects their cognitive development. Likewise, children's language skill affects their ability to establish social relationships with adults and other children, just as their skill in social interaction can support or impede their language development.

Because developmental domains are interrelated, educators should be aware of and use these interrelationships to organize children's learning experiences in ways that help children develop optimally in all areas and that make meaningful connections across domains.

Recognition of the connections across developmental domains is also useful for curriculum planning with the various age groups represented in the early childhood period. Curriculum with infants and toddlers is almost solely driven by the need to support their healthy development in all domains. During the primary grades, curriculum planning attempts to help children develop conceptual understandings that apply across related subject matter disciplines.

NAEYC. (1997). NAEYC Position Statement: *Principles of child development and learning that inform developmentally appropriate practice-Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8.* [Online]. Available: http://www.naeyc.org/resources/position_statements/dapdoc.htm [Retrieved: 2004, April 7].

Definitions of Developmental Domain Categories

Cognitive

Cognitive skills are those that help children understand their environment. Cognition typically refers to the child's thinking processes. These skills include visual and auditory attention, memory, comprehension, problem solving, creativity, and reasoning.

Physical (including vision and hearing)

This domain reflects the child's sensory, motor, and postural development, in addition to the child's vision and hearing status. Gross motor development occurs in a sequential manner allowing the child to maintain a stable posture and move against gravity. Fine motor development involves the use of small muscle movements and eye-hand coordination that allows the child to use his hands in increasingly precise ways.

Communication

Communication skills involve the child's abilities in social interaction, the use of language as a symbol system, and verbal, vocal and nonverbal methods of communication. Receptive language involves understanding and processing what is communicated by others, and expressive language is the ability to communicate to others.

Social/emotional

Social/emotional development involves the child's positive styles of interaction and secure attachment relationships with caregivers and peers. Social competence is the effective and appropriate use of social behaviors, as judged by appropriate members of an individual's social ecology.

Adaptive

Children develop adaptive skills that enable them to take care of themselves and move toward independence in activities related to feeding, bathing, dressing, toileting, etc.

Tennessee's Early Intervention System (TEIS) *Individualized Family Service Plan Manual*. (2000). Chapter 8, Glossary. Tennessee Department of Education. Nashville.



Describing Developmental Domains to Families

Service coordinators share lots of information during initial contacts with families. While learning about a family's concerns and priorities, it may be useful for the coordinator to explain what is meant by terms like *developmental domain*, *gross motor skills*, *receptive language skills*, etc.

While outcomes need not be written in a skill-related fashion, evaluators typically do use developmental domains as a way to describe children's development. It is important for families to have a clear and concise understanding of what each of the areas include. Being able to provide a good simple definition will help prepare families to participate in evaluation and assessment and facilitate their participation in the IFSP process.

Write a clear and concise (one or two sentences with examples) description of each of the following developmental domains. Practice/role play with the trainer how you would share this information with families. Place the completed handout in your portfolio.

Cognitive _____

Physical (including vision and hearing) _____

Communication _____

Social/emotional _____

Adaptive _____



Module 3

First Steps on the Journey Child Development

Milestones and Warning Signs



Milestones and Warning Signs

It is important for early intervention service coordinators to understanding typical development and warning signs or red flags that might indicate a developmental concern.

This knowledge is critical when conducting developmental screenings, when talking with families about their concerns, and in planning outcomes for families and children.

Warning signs or red flags do not necessarily mean there are problems, but they are indicators that follow-up is needed.



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Pathways Awareness Foundation

- **National Headquarters:**

Pathways Awareness Foundation
150 N. Michigan Ave., Suite 2100
Chicago, IL 60601

- **Website:** www.pathwaysawareness.org

- **Telephone:** 1-800-955-2445 or 312-893-6620

- **Fax:** 1-888-795-5884 or 312-893-6621

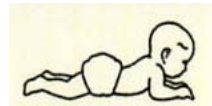


- **Toll-free National Information Line:** 1-800-955-2445
(or 1-800-955-CHILD)



Growth and Development Chart

By 3 Months





* Remember to correct your child's age for prematurity

Typical Speech Development*	Typical Play Development*	Typical Physical Development*	Signs to Watch for in Physical Development*
Sucks and swallows well during feeding	<i>While lying on their back...</i>	<i>While lying on their tummy...</i> 	-Difficulty lifting head 
Quiets or smiles in response to sound or voice	Visually tracks a moving toy from side to side	Pushes up on arms	-Stiff legs with little or no movement
Coos or vocalizes other than crying	Attempts to reach for a rattle held above their chest	Lifts and holds head up	-Pushes back with head 
Turns head toward direction of sound	Keeps head in the middle to watch faces or toys		-Keeps hands fisted and lacks arm movement



By 6 Months





* Remember to correct your child's age for prematurity

Typical Speech Development*	Typical Play Development*	Typical Physical Development*	Signs to Watch for in Physical Development*
Begins to use consonant sounds in babbling, e.g. "dada"	Reaches for a nearby toy while on their tummy	Uses hands to support self in sitting 	-Rounded back -Unable to lift head up -Poor head control 
Uses babbling to get attention	<i>While lying on their back...</i> Transfers a toy from one hand to the other	Rolls from back to tummy	-Difficult to bring arms forward to reach out -Arches back and stiffens legs 
Begins to eat cereals and pureed foods	Reaches both hands to play with feet	While standing with support, accepts entire weight with legs	-Arms held back -Stiff legs  5 3.5



* Remember to correct your child's age for prematurity




By 9 Months

Typical Speech Development*	Typical Play Development*	Typical Physical Development*	Signs to Watch for in Physical Development*
Increases variety of sounds and syllable combinations in babbling	In a high chair, holds and drinks from a bottle Explores and examines an object using both hands	Sits and reaches for toys without falling 	-Uses one hand predominately -Rounded back -Poor use of arms in sitting 
Looks at familiar objects and people when named	Turns several pages of a chunky (board) book at once	Moves from tummy or back into sitting	-Difficulty crawling -Uses only one side of body to move 
Begins to eat junior and mashed table foods	In simple play imitates others	Creeps on hands and knees with alternate arm and leg movement	-Inability to straighten back -Cannot take weight on legs 



By 12 Months



* Remember to correct your child's age for prematurity

Typical Speech Development*	Typical Play Development*	Typical Physical Development*	Signs to Watch for in Physical Development*
<p>Meaningfully uses "mama" or "dada"</p> <p>Responds to simple commands, e.g. "come here"</p>	<p>Finger feeds self</p>	<p>Pulls to stand and cruises along furniture</p> 	<p>-Difficulty getting to stand because of stiff legs and pointed toes</p>  <p>-Only uses arms to pull to standing</p>
<p>Produces long strings of gibberish (jargoning) in social communication</p> <p>Begins to use an open cup</p>	<p>Releases objects into a container with a large opening</p> <p>Uses thumb and pointer finger to pick up tiny objects</p>	<p>Stands alone and takes several independent steps</p>	<p>-Sits with weight to one side</p> <p>-Strongly flexed or stiffly extended arms</p> <p>-Needs to use hand to maintain sitting</p> 



* Remember to correct your child's age for prematurity

By 15 Months

Typical Speech Development*	Typical Play Development*	Typical Physical Development*	Signs to Watch for in Physical Development*
Vocabulary consists of 5-10 words	Stacks two objects or blocks	Walks independently and seldom falls 	Unable to take steps independently 
Imitates new less familiar words	Helps with getting undressed	Squats to pick up toy	Poor standing balance, falls frequently
Understands 50 words	Holds and drinks from a cup		Walks on toes
Increases variety of coarsely chopped table foods			



The following information was developed by Scott Moses, MD, a board-certified family physician to assist primary care providers in caring for young children.

Developmental red flags are identified and indicators for follow-up evaluation are listed.

Knowledge of these red flags can help the service coordinator better serve families of infants and toddlers with special needs.





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Family Practice Notebook

Moses, S. (2000) *Developmental Red Flags*. Family Practice Notebook, LLC. [Online]. Available:
<http://www.fpnotebook.com/PED46.htm> [Retrieved 2004, April 13].

Resources

Georgetown Bright Futures Provider Guidelines
<http://www.brightfutures.org/bf2/pdf/index.html>

References

Frankenburg (1990) Denver II Developmental Screening
[*Blondis \(1999\) Pediatr Clin North Am 46:899-913*](#)



Red Flags: Birth to 3 Months

- A. Rolling prior to 3 months
 - 1. Evaluate for hypertonia
- B. Persistent fisting at 3 months
 - 1. Evaluate for neuromotor dysfunction
- C. Failure to alert to environmental stimuli
 - 1. Evaluate for sensory impairment





Red Flags: 4 to 6 Months

- A. Poor head control
 - 1. Evaluate for hypotonia
- B. Failure to reach for objects by 5 months
 - 1. Evaluate for motor, visual or cognitive deficits
- C. Absent smile
 - 1. Evaluate for visual loss
 - 2. Evaluate for attachment problems
 - 3. Evaluate maternal major depression
 - 4. Consider child abuse or child neglect in severe cases





Red Flags: 6 to 12 Months

- A. Persistence of primitive reflexes after 6 months
 - 1. Evaluate for neuromuscular disorder
- B. Absent babbling by 6 months
 - 1. Evaluate for hearing deficit
- C. Absent stranger anxiety by 7 months
 - 1. May be related to multiple care providers
- D. W-sitting and bunny hopping at 7 months
 - 1. Evaluate for adductor spasticity or hypotonia
- E. Inability to localize sound by 10 months
 - 1. Evaluate for unilateral hearing loss
- F. Persistent mouthing of objects at 12 months
 - 1. May indicate lack of intellectual curiosity



Red Flags: 12 to 24 Months

- A. Lack of consonant production by 15 months
 - 1. Evaluate for mild hearing loss
- B. Lack of imitation by 16 months
 - 1. Evaluate for hearing deficit
 - 2. Evaluate for cognitive or socialization deficit
- C. Lack of protodeclarative pointing by 18 months
 - 1. Problem in social relatedness
- D. Hand dominance prior to 18 months
 - 1. May indicate contralateral weakness with hemiparesis



Red Flags: 12 to 24 Months (cont.)

- E. Inability to walk up and down stairs at 24 months
 1. May lack opportunity rather than motor deficit
- F. Persistent poor transitions in 21 to 24 months
 1. May indicate pervasive developmental disorder
- G. Advanced non-communicative speech (e.g. echolalia)
 1. Simple commands not understood suggests abnormality
 2. Evaluate for autism
 3. Evaluate for pervasive developmental disorder
- H. Delayed language development
 1. Requires hearing loss evaluation in all children



Immediate Speech Therapy Evaluation Indications

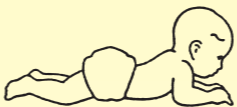















- A. No babbling by 12 months
- B. No pointing or gestures by 12 months
- C. No single words by 16 months
- D. No two-word spontaneous phrases by 24 months
- E. Speech not understandable by 24 months
- F. Regression of skills at any age
 1. Loss of language or babbling
 2. Loss of social skills



Understanding milestones and warning signs enables families and service coordinators to better meet the needs of the child.

This knowledge leads to evaluation and assessment which in turn facilitates appropriate supports and services for families and children.



	Typical Speech Development*	Typical Play Development*	Typical Physical Development*	Signs to Watch for in Physical Development*
BY 3 MONTHS	<ul style="list-style-type: none"> ❑ Sucks and swallows well during feeding ❑ Quiets or smiles in response to sound or voice ❑ Coos or vocalizes other than crying ❑ Turns head toward direction of sound 	<p><i>While lying on their back...</i></p> <ul style="list-style-type: none"> ❑ Visually tracks a moving toy from side to side ❑ Attempts to reach for a rattle held above their chest ❑ Keeps head in the middle to watch faces or toys 	 <p><i>While lying on their tummy...</i></p> <ul style="list-style-type: none"> ❑ Pushes up on arms ❑ Lifts and holds head up 	 <ul style="list-style-type: none"> ❑ Difficulty lifting head ❑ Stiff legs with little or no movement  <ul style="list-style-type: none"> ❑ Pushes back with head ❑ Keeps hands fisted and lacks arm movement
BY 6 MONTHS	<ul style="list-style-type: none"> ❑ Begins to use consonant sounds in babbling, e.g. “dada” ❑ Uses babbling to get attention ❑ Begins to eat cereals and pureed foods 	<ul style="list-style-type: none"> ❑ Reaches for a nearby toy while on their tummy <p><i>While lying on their back...</i></p> <ul style="list-style-type: none"> ❑ Transfers a toy from one hand to the other ❑ Reaches both hands to play with feet 	 <ul style="list-style-type: none"> ❑ Uses hands to support self in sitting ❑ Rolls from back to tummy ❑ While standing with support, accepts entire weight with legs 	 <ul style="list-style-type: none"> ❑ Rounded back ❑ Unable to lift head up ❑ Poor head control  <ul style="list-style-type: none"> ❑ Difficult to bring arms forward to reach out ❑ Arches back and stiffens legs  <ul style="list-style-type: none"> ❑ Arms held back ❑ Stiff legs
BY 9 MONTHS	<ul style="list-style-type: none"> ❑ Increases variety of sounds and syllable combinations in babbling ❑ Looks at familiar objects and people when named ❑ Begins to eat junior and mashed table foods 	<ul style="list-style-type: none"> ❑ In a high chair, holds and drinks from a bottle ❑ Explores and examines an object using both hands ❑ Turns several pages of a chunky (board) book at once ❑ In simple play imitates others 	 <ul style="list-style-type: none"> ❑ Sits and reaches for toys without falling ❑ Moves from tummy or back into sitting ❑ Creeps on hands and knees with alternate arm and leg movement 	<ul style="list-style-type: none"> ❑ Uses one hand predominately ❑ Rounded back ❑ Poor use of arms in sitting  <ul style="list-style-type: none"> ❑ Difficulty crawling ❑ Uses only one side of body to move   <ul style="list-style-type: none"> ❑ Inability to straighten back ❑ Cannot take weight on legs
BY 12 MONTHS	<ul style="list-style-type: none"> ❑ Meaningfully uses “mama” or “dada” ❑ Responds to simple commands, e.g. “come here” ❑ Produces long strings of gibberish (jargonning) in social communication ❑ Begins to use an open cup 	<ul style="list-style-type: none"> ❑ Finger feeds self ❑ Releases objects into a container with a large opening ❑ Uses thumb and pointer finger to pick up tiny objects 	 <ul style="list-style-type: none"> ❑ Pulls to stand and cruises along furniture ❑ Stands alone and takes several independent steps 	 <ul style="list-style-type: none"> ❑ Difficulty getting to stand because of stiff legs and pointed toes ❑ Only uses arms to pull up to standing  <ul style="list-style-type: none"> ❑ Sits with weight to one side ❑ Strongly flexed or stiffly extended arms ❑ Needs to use hand to maintain sitting
BY 15 MONTHS	<ul style="list-style-type: none"> ❑ Vocabulary consists of 5-10 words ❑ Imitates new less familiar words ❑ Understands 50 words ❑ Increases variety of coarsely chopped table foods 	<ul style="list-style-type: none"> ❑ Stacks two objects or blocks ❑ Helps with getting undressed ❑ Holds and drinks from a cup 	 <ul style="list-style-type: none"> ❑ Walks independently and seldom falls ❑ Squats to pick up toy 	 <ul style="list-style-type: none"> ❑ Unable to take steps independently ❑ Poor standing balance, falls frequently ❑ Walks on toes
	* Remember to correct your child's age for prematurity.			3.5a